Application No. 09/801,201 Preliminary Amendment dated Feb. 27, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the

application:

Listing of Claims:

Claim 1 (currently amended): A rate-of-change switch which comprises:

a transducer that produces an output in response to an input;

a differentiator being operatively that is connected to said output; and

means, being operatively that is connected to said differentiator, for

performing a first switching function.

Claim 2 (original): A rate-of-change switch as claimed in Claim 1 in

which said transducer comprises a transducer that produces an output that is

proportional to said input.

Claim 3 (original): A rate-of-change switch as claimed in Claim 1 in

which said transducer comprises a transducer that produces an output that is

proportional to a tilting input.

Claim 4 (currently amended): A rate-of-change switch which comprises:

a transducer that produces an output in response to an input;

a first differentiator being operatively that is connected to said output;

a second differentiator being operatively that is connected to said first

differentiator; and

means, being operatively that is connected to said second differentiator,

for performing a first switching function.

Claim 5 (currently amended): A rate-of-change switch as claimed in

Claim 4 which further comprises means, being operatively that is connected to

said first differentiator, for performing a second switching operation.

Claims 6-8 (withdrawn)

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Claim 9 (original): A method which comprises:

- a) producing an output in response to a manual input;
- b) differentiating said output with respect to time; and
- c) performing a first switching function in response to said differentiated output.

Claim 10 (original): A method as claimed in Claim 9 in which said producing step comprises:

- a) attaching a transducer to a person; and
- b) body-member actuating said transducer.

Claim 11 (currently amended): A method as claimed in Claim 9 in which:

- a) said method further comprises differentiating said output of said transducer a second time; and
- b) said performing step comprises performing said first switching function in response to said second differentiated output.

Claim 12 (currently amended): A method as claimed in Claim 9 in which:

- a) said differentiating step comprises differentiating said output of said transducer twice with respect to time; and
- b) said method further comprises performing a second switching function in response to said twice differentiated output.

Claim 13 (currently amended): A method as claimed in Claim 9 in which said method further comprises:

- a) performing said first switching function when said output of said transducer is increasing; and
- b) performing a second switching function when said output of said transducer is decreasing.

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Claim 14 (currently amended): A method as claimed in Claim 9 in which said method further comprises:

- a) performing said first switching function when said output of said transducer is increasing;
- a) b) performing a second switching function when said output of said transducer is decreasing; and
- b) c) producing a logic output as a function of both of said switching functions.

Claim 15 (currently amended): A method which comprises:

- a) attaching a first tilt-sensitive transducer to a person;
- b) body-member tilting said first tilt-sensitive transducer;
- c) producing a first output proportional to said body-member tilting step;
 - d) differentiating said first output with respect to time; and
- e) performing a first switching function in response to said differentiated first output.

Claim 16 (currently amended): A method as claimed in Claim 15 in which said method further comprises:

- a) attaching a second tilt-sensitive transducer to said person;
- b) body-member tilting said second tilt-sensitive transducer;
- c) producing a second output proportional to said body-member tilting of said second tilt-sensitive transducer;
 - d) differentiating said second output with respect to time; and
- e) performing said-first switching function as a logic combination output as a function of said first and second differentiated outputs.

Claim 17 (currently amended): A method for initiating operation of a first electrical device which comprises as claimed in Claim 9 in which said performing step comprises performing a switching function that includes momentary contact switching, and said method further comprises:

window of opportunity:

a) initiating a sequential plurality of time delays in which one is a

[[a]]] b) refraining from said momentary-contact switching step during a first time delay that follows said initiating step;

[[b)]] c) performing said momentary-contact switching step within said window of opportunity that follows said first time delay; and

[[c]]] <u>d)</u> refraining from <u>said</u> momentary-contact switching <u>step</u> during a second time delay that follows said window of opportunity[[,]]; and

e) initiating operation of a first electrical device subsequent to successful completion of the preceding steps.

Claim 18 (canceled)

Claim 19 (currently amended): A method as claimed in Claim 17 in which said method further comprises:

- a) momentary-contact switching during said second time delay; and
- b) initiating operation of a second electrical device in response to said momentary-contact switching step occurring during said second time delay.

Claim 20 (canceled)

Claim 21 (currently amended): A method for controlling selected ones of a plurality of electrically-powered functions which comprises:

- a) providing an opportunity timed opportunities for selection from successive ones of said electrically-powered functions;
 - b) selecting one of said electrically-powered functions;
 - c) controlling said one electrically-powered function; and
 - d) returning to said providing step.
- d) said selecting step comprises manually producing an output and differentiating said output with respect to time.

Claim 22 (canceled)

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Claim 23 (currently amended): A method as claimed in Claim 21 in which said providing step comprises:

- a) initiating a sequential plurality of time delays in which a second one of said time delays is a window of opportunity;
- b) momentary-contact switching within said window of opportunity;
 and
- c) refraining from said momentary-contact switching step except in said window of opportunity.

Claim 24 (currently amended): A method as claimed in Claim 24 23 in which said selecting momentary-contact switching step comprises:

- a) manually producing an output; and
- b) differentiating said output with respect to time.

Claim 25 (currently amended): Apparatus which comprises:

an electrically-powered conveyance;

an environmental control unit that includes a plurality of accessible control functions;

a momentary-contact switch; and

means, that is connected to said conveyance, said control unit, and said momentary-contact switch for selectively controlling said conveyance or said environmental control unit by said momentary-contact switch[[,]]; and said momentary-contact switch comprises a differentiator.

Claim 26 (canceled)

Claim 27 (currently amended): Apparatus as claimed in Claim 25 in which:

said conveyance includes means, comprising first and second tilt transducers, for controlling control of both speed and steering of said conveyance are accomplished by selectively tilting X- and Y axis transducers; and

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said momentary-contact switch comprises one of said transducers and Ifall said differentiator.

Claim 28 (currently amended): An electrically-powered conveyance having a wheel and an electric motor that is drivingly connected to said wheel, the improvement which comprises:

a transducer that produces an output that is proportional to an input; means, that is connected to said electric motor, for controlling speeds of said electrically-powered conveyance proportional to said output;

a differentiator being operatively that is connected to said transducer; and

means, being operatively that is connected to said differentiator, for shutting down said conveyance whenever said differentiator produces a signal that exceeds an allowable magnitude.

Claim 29 (currently amended): Apparatus as claimed in Claim 28 in which:

said conveyance includes a second wheel and a second electric motor that is drivingly connected to said second wheel;

said means for controlling said speeds of said conveyance comprises means for differential speed control of said wheels;

said transducer comprises a tilt-axis transducer;

said differential control of said speed of said wheels comprises a second tilt-axis transducer[[,]] and means for attaching said tilt-axis transducers to a person; and

said means for shutting down said conveyance comprises means for shutting down said conveyance whenever a differentiated output from either of said tilt-axis transducers exceeds an allowable magnitude.

Claim 30 (canceled)

Claim 31 (new): A method which comprises:

a) body-member actuating a transducer;

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b) producing an output proportional to said body-member actuating step: and

c) performing a switching function in response to a rate-of-change of said output.

Claim 32 (new): A method as claimed in Claim 31 in which:

- a) said producing step comprises producing an output that increases: and
- b) said performing step comprises performing said switching function whenever said rate-of-change of said increasing output reaches a predetermined magnitude.

Claim 33 (new): A method as claimed in Claim 31 in which:

- a) said producing step comprises producing an output that decreases: and
- b) said performing step comprises performing said switching function whenever said rate-of-change of said decreasing output reaches a predetermined magnitude.

Claim 34 (new): A method as claimed in Claim 31 in which said method further comprises proportionally controlling a function of an apparatus in response to said switching function.

Claim 35 (new): A method as claimed in Claim 31 in which said method further comprises activating control of an apparatus in response to said switching function.

Claim 36 (new): A method as claimed in Claim 31 in which said method further comprises activating proportional control of an apparatus in response to said switching function.

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Claim 37 (new): A method as claimed in Claim 31 in which said method further comprises activating proportional control of an apparatus by said proportional output in response to said switching function.

Claim 38 (new): A method as claimed in Claim 31 in which said method further comprises activating control of an apparatus in response to said switching function being performed inside a window of opportunity.

Claim 39 (new): A method as claimed in Claim 31 in which said. method further comprises:

- a) activating control of an apparatus in response to said switching function being performed inside a window of opportunity; and
- b) aborting said activating step in response to said switching step being performed outside said window of opportunity.

Claim 40 (new): A method as claimed in Claim 31 in which said method further comprises activating a shut-down function of an apparatus in response to said switching function.

Claim 41 (new): A method as claimed in Claim 31 in which said method further comprises activating a selected one of a first or a second apparatus in response to said switching function.

Claim 42 (new): A method as claimed in Claim 31 in which said method further comprises:

- a) activating a selected one of a first or a second apparatus in response to performing said switching function during a window of opportunity; and
- b) proportionally controlling a function of said selected apparatus as a function of said proportional output.

Claim 43 (new): A method as claimed in Claim 31 in which said method further comprises:

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- a) activating a selected one of a first or a second apparatus in response to a performing said switching function during a window of opportunity;
 - b) selecting a function of said selected apparatus to be controlled; and
 - c) said selecting step comprises performing another switching function.

Claim 44 (new): A method as claimed in Claim 31 in which said method further comprises;

- a) activating a selected one of a first or a second apparatus in response to performing said switching function during a window of opportunity;
 - b) selecting a function of said selected apparatus to be controlled;
 - c) said selecting step comprises performing another switching function;
 - d) controlling said selected function; and
- e) said controlling step comprises performing still another switching function.

Claim 45 (new): A method as claimed in Claim 31 in which said method further comprises:

- a) initiating cascading a plurality of task opportunities;
- b) selecting a task;
- c) said selecting step comprises said switching function.

Claim 46 (new): A method as claimed in Claim 31 in which said method further comprises:

- a) initiating cascading a plurality of task opportunities;
- b) selecting a task:
- c) said selecting step comprises said switching function;
- d) selectively controlling said task; and
- e) said selective controlling step comprises performing another switching function.

Claim 47 (new): A method as claimed in Claim 31 in which said method further comprises:

a) initiating cascading of a plurality of task opportunities; and

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b) said initiating step comprises said switching function.

Claim 48 (new): A method as claimed in Claim 31 in which said method further comprises:

- a) initiating cascading of a plurality of task opportunities;
- b) said initiating step comprises said switching function;
- c) selecting a task; and
- d) said selecting step comprises performing another switching function.

Claim 49 (new): A method as claimed in Claim 31 in which said method further comprises:

- a) initiating cascading of a plurality of task opportunities;
- b) said initiating step comprises said switching function;
- c) selecting a task;
- d) said selecting step comprises performing another switching function;
- e) selectively controlling said task; and
- f) said selective controlling step comprises performing still another switching function.

Claim 50 (new): A method which comprises:

- a) body-member producing first and second proportional outputs; and
- b) controlling both first and second proportional functions and a switching function of an apparatus in response to said outputs.

Claim 51 (new): A method as claimed in Claim 50 in which said controlling step of said switching function comprises differentiating one of said outputs.

Claim 52 (new): A method as claimed in Claim 50 in which:

- a) said body-member producing step comprises producing outputs that change in both increasing and decreasing directions; and
- b) said controlling step further comprises performing said switching function in response to a rate-of-change of one of said outputs that exceeds a

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predetermined magnitude when said one output is changing in a selected one of said directions.

Claim 53 (new): A method which comprises:

- a) body-member producing first and second proportional outputs; and
- b) selecting between a first apparatus and a second apparatus, controlling first and second proportional functions of said first apparatus, and . performing a switching function of said second apparatus in response to said outputs.

Claim 54 (new): A method as claimed in Claim 53 in which said selecting step comprises differentiating one of said outputs.

Claim 55 (new): A method as claimed in Claim 53 in which said controlling step of said switching function comprises differentiating one of said outputs.

Claim 56 (new): A method as claimed in Claim 53 in which:

- a) said body-member producing step comprises producing outputs that change in both increasing and decreasing directions; and
- h) said selecting step further comprises performing said switching function in response to a rate-of-change of one of said outputs that exceeds a predetermined magnitude when said one output is changing in a selected one of said directions.

Claim 57 (new): A method which comprises:

- a) body-member producing first and second proportional outputs; and
- b) selecting between a first apparatus and a second apparatus, controlling first and second proportional functions of said first apparatus, initiating cascading of task opportunities, selecting a task, and controlling said selected task in response to said outputs.

Claim 58 (new): A method as claimed in Claim 57 in which said selecting step comprises differentiating one of said outputs.

Claim 59 (new): A method as claimed in Claim 57 in which said cascading step comprises differentiating one of said outputs.

Claim 60 (new): A method as claimed in Claim 57 in which said control of said selected task comprises differentiating one of said outputs.

Claim 61 (new): A method as claimed in Claim 57 in which:

- a) said body-member producing step comprises producing outputs that change in both increasing and decreasing directions; and
- b) said selecting of said task further comprises performing said switching function in response to a rate-of-change of one of said outputs that exceeds a predetermined magnitude when said one output is changing in a selected one of said directions.

Claim 62 (new): A switch which comprises:

- a mechanical to electrical transducer;
- a differentiator that is connected to said transducer; and
- a comparator that is connected to said differentiator.

Claim 63 (new): A switch which comprises:

a transducer that produces an output proportional to an input; and means, that is connected to said transducer, for producing a switching function whenever a rate-of-change of said output in a selected direction reaches a predetermined magnitude.

Claim 64 (new): A method which comprises:

- a) activating an apparatus; and
- b) said activating step comprises manually actuating a transducer and differentiating an output of said transducer.

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Claim 65 (new): A method as claimed in Claim 64 in which said activating step further comprises manually actuating said transducer within a window of opportunity.

Claim 66 (new): A method which comprises:

- a) selectively activating a first or a second apparatus; and
- b) said selective activating step comprises manually actuating a transducer and differentiating an output of said transducer.

Claim 67 (new): A method as claimed in Claim 66 in which said selective activating step further comprises manually actuating said transducer within a window of opportunity.

Claim 68 (new): A method which comprises:

- a) initiating cascading of a plurality of task opportunities; and
- b) said initiating step comprises manually actuating a transducer and differentiating an output of said transducer.

Claim 69 (new): A method as claimed in Claim 68 in which said initiating step further comprises manually actuating said transducer within a window of opportunity.

Claim 70 (new): A method as claimed in Claim 68 in which said method comprises selecting a task.

Claim 71 (new): A method as claimed in Claim 68 in which said method further comprises:

- a) selecting a task; and
- b) said selecting step comprises manually actuating a transducer and differentiating an output of said transducer.

Claim 72 (new): A method as claimed in Claim 68 in which said method further comprises:

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- - b) controlling said selected task.

a) selecting a task; and

Claim 73 (new): A method as claimed in Claim 68 in which said method further comprises:

- a) selecting a task;
- b) controlling said selected task; and
- c) said controlling step comprises manually actuating a transducer and differentiating an output of said transducer.